August 28, 2008
Project No. 13636

Mr. J. Ryan Benefield, P.E.
Chief, Hazardous Waste Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72218

Subject: Facility Investigation (FI) Workplan Supplement No. 2
Installation of Additional Alluvial Aquifer Monitoring Wells
Cedar Chemical Company Facility ("the Site")
West Helena, Arkansas
State EPA ID No. ARD990660649

Dear Mr. Benefield:

This Supplement is being submitted based on the preliminary findings of the on-going Facility Investigation. During the perched and alluvial aquifer monitoring well installation event in June and July 2008, AMEC Geomatrix (AMEC) installed fourteen perched zone wells and two alluvial aquifer wells on site; and four alluvial aquifer wells off site. The purpose of these wells was to further characterize the hydraulic and geochemical nature of the alluvial aquifer and enhance the understanding of the lateral and vertical extent and continuity of the perched zone. In addition, groundwater samples were collected from existing and the new monitoring wells to characterize the extent of chemical impact.

This investigative work shows that certain constituents of concern (COCs) in alluvial aquifer groundwater extend beyond the Site boundaries to the south and southeast at concentrations that exceed applicable screening levels (see Figure 1). 1,2-Dichloroethane (1,2-DCA), in particular, was detected at the farthest well sampled downgradient. This work appears to confirm earlier findings that a 1,2-DCA plume extends from the site to the eastern boundaries of the surrounding industrial park. Based on these findings, we believe that three additional wells along the downgradient (east-southeast) boundaries of the industrial park would be useful in characterizing and delineating the higher concentration areas of this plume.

In addition, we propose one alluvial aquifer well at the northeast corner of the Site, in order to improve the delineation of the northern portion of the 1,2-DCA plume. This direction is cross-gradient from the Site process areas, based on the currently measured gradient.

No additional perched zone aquifer wells are needed to meet Facility Investigation objectives.

The four new proposed alluvial aquifer monitoring wells will be installed using the same approved techniques as the June and July 2008 well installation activities. This includes using a Continuous Multilevel System technology (CMT Solinst) that allows screening multiple zones

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across the alluvial aquifer with a single borehole. This well construction will allow discrete sampling from either the upper, middle, and/or basal zones of the alluvial aquifer. Actual monitoring depths at each location will be selected in the field based on the site specific geology, but the approximate target depths for monitoring are 55, 85 and 145 feet below ground surface. To the extent practicable, the screen settings will target highly transmissive horizons, such as coarse sand or gravel beds, that may act as preferential migration pathways for dissolved contaminants.

After well installation is complete, each CMT well will be equipped with a dedicated downhole pump and will be developed by pumping until field parameters are stable. Once the well has been developed and allowed to recharge, groundwater samples will be collected from each well and analyzed in the analytical testing laboratory for volatile organic compounds (VOCs) by USEPA Method 8060, semi-volatile organic compounds (SVOCs) by USEPA Method 8270, pesticides and herbicides by USEPA Method 8081A. All other FI wells will also be sampled during this event.

Subject to ADEQ approval of this approach, Geomatrix plans to mobilize to the Site to commence alluvial aquifer well installation on September 22, 2008.

If you have any comments regarding this report, please call me at (512) 494-0333.

Sincerely,
AMEC Geomatrix, Inc.

Kelly Beck, P.G.
Senior Project Manager

cc: ExxonMobil
Helena Chemical Company

Attachments:

Figure 1 Proposed Well Location map